UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/516,983	03/01/2000	Charles A. Eldering	8887.3002CNT	3153

27832 7590 07/08/2005	EXAMINER
TECHNOLOGY, PATENTS AND LICENSING, INC./PRIME	SHELEHEDA, JAMES R

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ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 07/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)
Office Action Summary		09/516,983	ELDERING ET AL.
		Examiner	Art Unit	
		James Sheleheda	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _15 April 2005_.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _96-116_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _96-116_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _05/18/05_.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

04/25/05 has been entered.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of
> making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the
> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
> set forth the best mode contemplated by the inventor of carrying out his invention.

3.   Claim 96 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply

with the written description requirement. The claim(s) contains subject matter which

was not described in the specification in such a way as to reasonably convey to one

skilled in the relevant art that the inventor(s), at the time the application was filed, had

possession of the claimed invention. The disclosure fails to enable one of ordinary skill

in the art to make or perform "creating one or more interaction groups" and "applying

one or more heuristic rules to the interaction groups", as recited in claim 96.

More specifically, while the specification defines a plurality of user interactions (such as channel changes, volume changes and specific program selections; see Figs. 5 and 6a-c and 7; pages 19-23) and filtering out interactions deemed irrelevant or inconsequential (Figs. 6a-c and 7; pages 20-23), there is no specific mention of creating "interaction groups" based on "viewer interaction characteristics."

Further, on page 9, paragraph 2 of applicant's response, applicant specifically states that the current invention is used to determine characteristics about the user interactions, which might indicate that there were six types or "sessions" of viewer interactions (see applicant's response at page 9, lines 11-15). A "session" as defined in the specification simply refers to interactions that took place between the current time and the time the unit was last turned on (see the specification at page 30, lines 6-11). Heuristic rules are then applied to the user data for this session. The specification as originally filed does not provide support for further reducing this "session" of interactions any further sub-group of interactions.

4.   Claims 96, 102 and 108 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The disclosure fails to enable one of ordinary skill in the art to make or perform "inferring the size of the household based on the number of distinct viewer characteristics", as recited in claims 96, 102 and 108.

More specifically, the specification discloses wherein particular actions may predict a particular family size (see the specification at Fig. 12 and page 29, lines 22-27 and page 31, lines 24-29). These plural values are then calculated together to form average values to determine a predicted demographic (page 30, line 23-page 31, line 9). There is no disclosure of determining the family size based on "*the number* of distinct viewer characteristics." In the claim rejections, "the number of" is being interpreted to indicate that a plurality of characteristics are used.

5.   Claim 98 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The disclosure fails to enable one of ordinary skill in the art to make or user a system "wherein heuristic rules assign probabilities of an interaction group being associated with another interaction group based on the viewer interaction characteristics", as recited in claim 98.

More specifically, heuristic rules are applied to subscriber interactions to assign probabilities of an interaction being associated with a particular viewer characteristic (see, for example, Figs. 10a and 10b, page 26, line 19-page 28, line 4, of the specification). While watching particular types of programming and channel change rates may predict particular demographic data (see the specification at page 26, lines

19-31), there is specific disclosure of heuristic rules predicting any relationships

between different interactions or interaction groups.

6.   Claims 104 and 113 are rejected under 35 U.S.C. 112, first paragraph, as failing

to comply with the written description requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed,

had possession of the claimed invention. The disclosure fails to enable one of ordinary

skill in the art to make or user a system "wherein heuristic rules assign probabilities of a

viewer characteristic being associated with another viewer characteristic based on the

viewer interaction characteristics", as recited in claim 98.

More specifically, heuristic rules are applied to subscriber interactions to assign

probabilities of an interaction being associated with a particular viewer characteristic

(see, for example, Figs. 10a and 10b, page 26, line 19-page 28, line 4, of the

specification). While watching particular types of programming and channel change

rates may predict particular demographic data (see the specification at page 26, lines

19-31), there is no specific disclosure of heuristic rules predicting any relationships

between different viewer characteristics.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8.   Claims 96, 97, 99, 100, 102, 103, 105, 106, 108, 109, 112, 114 and 115 are

rejected under 35 U.S.C. 102(e) as being anticipated by Alexander et al. (Alexander)

(6,177,931) (of record).

As to claim 96, Alexander discloses in a video network (column 28, lines 13-21),

a computer implemented method (column 5, lines 21-46) of determining size of a

household (column 30, lines 29-32), the method comprising:

(a) monitoring viewer interactions with a multimedia device (column 28, lines 30-

52);

(b) determining viewer interaction characteristics corresponding to the viewer

interactions (determining the interaction made the viewer and circumstances

surrounding those actions; column 28, lines 30-52);

(c) creating one or more interaction groups (compiled viewer profile data, column

29, lines 14-21, which is periodically repeated to generate new updated profiles, column

29, lines 22-30) based on the viewer interaction characteristics (containing the viewer

interaction information; column 28, lines 30-52 and column 29, lines 14-21);

(d) applying one or more heuristic rules to the interaction groups (column 29,

lines 56-67 and column 30, lines 1-29), wherein the heuristic rules assign a viewer

characteristic to each interaction group (determining preference information about the

viewer from the current profile data; column 29, lines 56-67, column 31, lines 34-47 and

column 32, lines 24-34); and

(e) inferring the size of the household (inferring whether or not the viewer is

married and has children; column 30, lines 30-32) based on the number of distinct

viewer characteristics (column 30, lines 17-37).

As to claim 102, Alexander discloses in a video network (column 28, lines 13-21),

a computer implemented method (column 5, lines 21-46) of determining size of a

household (column 30, lines 29-32), the method comprising:

(a) monitoring viewer interactions with a multimedia device (column 28, lines 30-

52);

(b) determining viewer interaction characteristics corresponding to the viewer

interactions (determining the interaction made the viewer and circumstances

surrounding those actions; column 28, lines 30-52);

(d) applying one or more heuristic rules to the viewer interaction characteristics

(analysis learning viewer preferences based upon the user data; column 29, lines 14-30

and 56-67 and column 30, lines 1-29), wherein the heuristic rules assign one or more

viewer characteristics based on the interaction characteristics (determining preference

information about the viewer from the profile data; column 29, lines 56-67, column 31,

lines 34-47 and column 32, lines 24-34); and

(e) inferring the size of the household (inferring whether or not the viewer is

married and has children; column 30, lines 30-32) based on the number of distinct

viewer characteristics (column 30, lines 17-37).

As to claim 108, Alexander discloses in a video network (column 28, lines 13-21),

a computer implemented method (column 5, lines 21-46) of determining size of a

household (column 30, lines 29-32), the method comprising:

(a) monitoring viewer interactions with a multimedia device (column 28, lines 30-

52), the viewer interactions occurring during one or more interaction sessions (compiled

viewer profile data, column 29, lines 14-21, which is periodically repeated to generate

new updated profiles, column 29, lines 22-30);

(b) determining viewer interaction characteristics corresponding to the viewer

interactions (determining the interaction made the viewer and circumstances

surrounding those actions; column 28, lines 30-52);

(d) applying one or more heuristic rules to the viewer interaction characteristics

(analysis learning viewer preferences based upon the user data; column 29, lines 14-30

and 56-67 and column 30, lines 1-29), wherein the heuristic rules a viewer characteristic

to each interaction session (determining preference information about the viewer from

the current profile data; column 29, lines 56-67, column 31, lines 34-47 and column 32,

lines 24-34) based on the interaction characteristics (determining preference information

about the viewer from the profile data; column 29, lines 56-67, column 31, lines 34-47

and column 32, lines 24-34); and

(e) inferring the size of the household (inferring whether or not the viewer is

married and has children; column 30, lines 30-32) based on the number of distinct

viewer characteristics (column 30, lines 17-37).

As to claims 97, 103 and 112, Alexander discloses wherein the heuristic rules are

probabilistic in nature (wherein the rules are inherently probabilistic in that it is predicting

demographic characteristics of the user; column 30, lines 17-37).

As to claims 99, 105 and 114, Alexander discloses wherein said monitoring

includes at least some subset of channel changes (column 28, lines 32-37), volume

changes (column 28, lines 46-49), record commands (column 28, lines 44-46) and time

of viewer interaction (column 28, lines 32-35).

As to claims 100 and 115, Alexander discloses wherein step (c) includes

evaluating channel change commands and associated viewing times (column 28, lines

30-35 and column 29, lines 34-36) to group the viewer interaction characteristics

(accumulated viewing statistics; column 29, lines 50-55).

As to claim 106, Alexander discloses wherein step (c) includes evaluating

channel change commands and associated viewing times (column 28, lines 30-35) to

determine the viewer interaction characteristics (using the compiled viewing data to

determine user preferences; column 29, lines 14-21 and lines 56-67).

As to claim 109, Alexander discloses wherein step (b) includes processing the

viewer interactions for an interaction session (processing interactions for the current

accumulated profile; column 29, lines 14-37) to generate session interaction

characteristics (determining the interaction made the viewer and circumstances

surrounding those actions for the most current accumulated session data; column 28,

lines 30-52 and column 29, lines 14-37) for each interaction session (for each update of

accumulated data; column 29, lines 22-37).

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10.   Claims 110 and 111 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Alexander.

As to claim 110, while Alexander discloses wherein said processing includes

processing the subscriber interactions for multiple interaction sessions (wherein the

profile is constantly updated with current session information; column 29, lines 36-43

and lines 23-27) to generate interaction characteristics for the multiple viewing sessions

(to generate an updated profile containing all of the viewing session information; column

29, lines 22-30), he fails to specifically disclose generating average interaction characteristics.

The examiner takes Official Notice that it is notoriously well known in the art to use an average as representative of a large range of values for the typical benefit of finding a value with the best correlation and reducing the effects of extreme values on a system.

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Alexander's system to include generating average interaction characteristics for the typical benefit of finding a value with the best correlation and reducing the effects of extreme values on a system.

As to claim 111, Alexander discloses wherein

wherein the heuristic rules are also applied to the average interaction characteristics (assigning rules to the current stored interactions, see the rejection of claim 110 above and column 29, lines 34-43 and column 30, lines 17-37) to assign viewer characteristics (column 29, lines 56-67 and column 30, lines 17-37).

11.   Claims 101, 107 and 116 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander as applied to claims 96, 102 and 108 above, and further in view of Bedard (5,801,747) (of record).

As to claims 101, 107 and 116, while Alexander discloses wherein the interaction characteristics include the number of times a viewer watched a channel and category

and the duration of each viewing, he fails to specifically disclose including viewing time per channel, category and network.

In an analogous art, Bedard discloses a system for creating a viewing profile (column 2, lines 13-22) which will calculate and store a time duration for the time a user spent viewing a particular channel and network (ESPN; see Fig. 2; column 4, lines 49-54) and category (movies, news, etc...; see Fig. 2, column 4, lines 55-65) for the benefit of providing a means to determine a viewer's preferred channels and types of programming (column 3, lines 33-38).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Alexander's system to include viewing time per channel, category and network, as taught by Bedard, for the benefit of providing an additional means to determine a viewer's preferred channels and types of programming based upon the length of time the program was viewed.

Response to Arguments

12.   Applicant's arguments filed 04/25/05 have been fully considered but they are not persuasive.

a.   While on page 8, paragraph 1, applicant states that pages 29-34 provide full support for the new claims, the specification has in fact been found to lack proper support and the claims are considered to include new matter (see 112 rejections above).

b.   On page 9, applicant's statements on how the current invention is different

then Alexander and identifies the household size also do not appear to be

supported in any way by the specification as originally filed (see 112 rejections

above).

c.   On page 10, applicant argues that Alexander's profile is based on "simple

statistical analysis and basic viewer profile data" and does not teach or suggest

heuristic rules.

In response, Alexander is operable to "determine" if the "viewer is a fan of

a particular team" (see Alexander at column 29, lines 60-67). In such a case a

"heuristic rule" is applied that if viewers frequently watch the Boston Red Sox

then they are statistically likely to be Boston fans (ex. Frequent viewers of a

particular team are likely fans of that team). The examiner finds this to be

analogous to the example cited by the applicant wherein if an individual watch

"Days of our Lives" then they are likely to be a housewife (or "Days of our Lives"

fan) (see specification at Fig. 10a). Similarly, a "heuristic rule" as applied in

conjunction with the instant application may further suggest that as a result of

being a fan of a particular team, that they may statistically likely be interested in

watching particular future programs and/or advertisements related to that team

not necessarily explicitly reflect in the EPG data (ex. Boston Red Sox fans are

likely to be interested in buying Boston Red Sox products, watching Boston Red

Sox advertisements and/or future programming related to the Boston Red Sox)

(column 29, lines 60-67, column 30, lines 17-29, column 31, line 25-column 32,

line 6 and column 32, lines 24-34).

d.   On page 10, applicant argues that Alexander does not disclose that rules

are applied to different interaction groups.

In response, as indicated in the rejections above, Alexander discloses

applying heuristic rules to the assembled group of interaction information in the

profile (for ex. column 29, lines 56-67) to determine characteristics (such as

favorite sports team; column 29, lines 56-67). He further discloses wherein a

new updated profile will be created as new data is accumulated (column 29, lines

22-30) which then in turn has rules applied to it (column 29, lines 22-67). This

meets the claim limitations of applying heuristic rules to one or more groups and

then applying characteristics to each group.

e.   On pages 10 and 11, applicant argues that Alexander does not disclose

inferring the size of the household.

In response, Alexander specifically discloses inferring whether or not a

viewer is married and has children. This is clearly a direct inference into a "size"

of a household, as inferring that a man is married and has a child has clearly set

a household size of at least 3 people, and is therefore presumably larger in size

then a household consisting of an unmarried, childless man. The claim language

does not specifically require predicting the exact *number* of people in a

household, simply an inference into the size.

f.   As to applicant's arguments on pages 12-14, see the rejections and (a)-(d)

above.

g.   The Official Notice presented in the prior action stating that it is notoriously

well known in the art to use an average as representative of a large range of

values was not traversed and is accordingly taken as an admission of the fact

noted.

Conclusion

13.   The following are suggested formats for either a Certificate of Mailing or
Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with
all correspondence concerning this application or proceeding to establish a date of
mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in
such communication being considered as timely if the established date is within the
required period for reply. The Certificate should be signed by the individual actually
depositing or transmitting the correspondence or by an individual who, upon information
and belief, expects the correspondence to be mailed or transmitted in the normal course
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I hereby certify that this correspondence is being deposited with the United States Postal Service with
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I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. (703)_____ - _____ on _____.
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Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

14.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Sheleheda whose telephone number is (571) 272-7357. The examiner can normally be reached on 9:00-5:30.
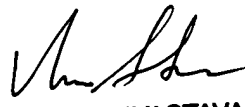
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

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Business Center (EBC) at 866-217-9197 (toll-free).

James Sheleheda
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Art Unit 2614

JS

VIVEK SRIVASTAVA
PRIMARY EXAMINER